

CLAIMS

What is claimed is:

1. A battery pack comprising:

- 5 a switching control port to receive a switch control signal from a battery pack
port;
 a battery stack;
 an output power port; and
 switch circuitry to selectively couple the battery stack to the output power port
10 based at least in part on the switch control signal.

2. The battery pack of claim 1 further comprising:

- a sensor coupled to the battery stack; and
 wherein the switch circuitry further comprises protection circuitry to selectively
15 decouple the battery stack from the output power port based on feedback from the
sensor.

3. The battery pack of claim 2 wherein the sensor comprises at least one of a
current monitor, voltage monitor, and a temperature monitor.

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4. The battery pack of claim 2 further comprising:

- a communications port to supply a battery status signal to the battery pack
port, wherein the protection circuitry is to generate the battery status signal based at
least in part on the feedback from the sensor.

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5. The battery pack of claim 2 wherein the feedback from the sensor takes priority
over the switch control signal.

6. The battery pack of claim 1 wherein the battery stack comprises at least one

30 battery cell.

7. The battery pack of claim 1 wherein the switch circuitry comprises:
a first metal-oxide-semiconductor field effect transistor (MOSFET) having a source coupled to the output power port;
a second MOSFET having a drain coupled to a drain of the first MOSFET
5 and a source coupled to the battery stack; and
logic circuitry coupled to the switch control port and to a gate of each of the first and second MOSFETs.

8. The battery pack of claim 7 wherein the switch circuitry further comprises:
10 protection circuitry to provide a stack enable signal; and
wherein the logic circuitry provides a logical AND of the switch control signal and the stack enable signal to the gates of the first and second MOSFETs.

15 9. A method comprising:
receiving a switch control signal from a battery pack port at a battery pack;
and
selectively coupling a battery stack in the battery pack to an output power port of the battery pack based at least in part on the switch control signal.

20 10. The method of claim 9 further comprising:
sensing a feedback condition of the battery stack; and
selectively decoupling the battery stack from the output power port based on the feedback condition.

25 11. The method of claim 10 wherein sensing the feedback condition comprises at least one of:
sensing a temperature of the battery stack;
sensing a voltage of the battery stack; and
30 sensing a current of the battery stack.

12. The method of claim 10 further comprising:
generating a battery status signal based at least in part on the feedback condition; and
communicating the battery status signal to the battery pack port.

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13. The method of claim 10 wherein the feedback condition takes priority over the switch control signal.

10 14. A system comprising:
a mobile computer having a battery pack port; and
a battery pack to couple to the battery pack port, said battery pack comprising
a switching control port to receive a switch control signal from the
battery pack port;
15 a battery stack;
an output power port; and
switch circuitry to selectively couple the battery stack to the output
power port based at least in part on the switch control signal.

20 15. The system of claim 14 wherein the battery pack further comprises:
a sensor coupled to the battery stack; and
wherein the switch circuitry further comprises protection circuitry to selectively
decouple the battery stack from the output power port based on feedback from the
sensor.

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16. The system of claim 15 wherein the sensor comprises at least one of a current monitor, a voltage monitor, and a temperature monitor.

17. The system of claim 15 wherein the battery pack further comprises:

a communications port to supply a battery status signal to the battery pack port, wherein the protection circuitry is to generate the battery status signal based at least in part on the feedback from the sensor.

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18. The system of claim 15 wherein the feedback from the sensor takes priority over the switch control signal.

10 19. A battery pack port comprising:

a switching control port to provide a switch control signal to a battery pack, said battery pack comprising

a battery stack,
an output power port, and

15 switch circuitry to selectively couple the battery stack to the output power port based at least in part on the switch control signal.

20. The battery pack port of claim 19 further comprising:

20 a communications port to receive a battery status signal from the battery pack port, said battery pack comprising protection circuitry to generate the battery status signal based at least in part on feedback from a sensor coupled to the battery stack.

21. The battery pack port of claim 20 wherein the sensor comprises at least one of a current monitor, a voltage monitor, and a temperature monitor.

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